OT 29 2004 S

IOWA:042USD1 U.S. Serial No. 09/612,809 . "Method to Identify Modulators of FKHL7 DNA-Binding Activity Val C. Sheffield et al.

1/4

61	cctggttatttggccgccttcgccggcagctcagggcagagtctcctggaaggcgcagg	2
121 181	agtgtggcgagaagggcgcctgcttgttctttcttttgtctgctttcccccgtttgcgcctggaagctgcgcggggttcctgcaaggcggtctgccggggcccgggccttctc	3
241	ccctcgcagcgaccccgcctcgcggccgcgggccccgaggtagcccgaggcgcggag	, I
301	gagecagecceagegagegeegggagaggeggcageeggaegeagegeacagegeageg	j
361	gccggcaccagctcggccgggcccggactcggactcggcggccggc	Í
421	cccgagcgagggtgggggggggggggggggggggggggg	•
457	cggcggcgagcgggggccATGCAGCCGCGCGCTACTCCGTGTCCAGCCCCAACTCC	
437	METGlnAlaArgTyrSerValSerSerProAsnSer	12
F11	CMCCCC CMCCMCCCCCMC CCMCCCCCCCCCCCCCCC	
511	CTGGGAGTGGTGCCCTACCTCGGCGGCGAGCAGAGCTACTACCGCGCGGGCGCC LeuGlyValValProTyrLeuGlyGlyGluGlnSerTyrTyrArgAlaAlaAla	30
565	GCGGCGGCCGGGGCGCTACACCGCCATGCCGGCCCCATGAGCGTGTACTCG AlaAlaAlaGlyGlyGlyTyrThrAlaMETProAlaProMETSerValTyrSer	48
C10	C3 CCCCCCC 2 CCCCCC CC3 CC3 CC3 CC3 CCCCCCCC	
619	CACCCTGCGCACGCCGAGCAGTACCCGGGCGGCATGGCCCGCGCCTACGGGCCC HisProAlaHisAlaGluGlnTyrProGlyGlyMETAlaArgAlaTyrGlyPro	66
C72	ma ca cococca cococa cococa a coa ca mocomo a cocococcma ma coma Camo	
673	TACACGCCGCAGCCGAAGGACATGGTGAAGCCGCCCTATAGCTACATC TyrThrProGlnProGlnProLysAspMETValLysProProTyrSerTyrIle	84
777	GCGCTCATCACCATGGCCATCCAGAACGCCCCGGACAAGAAGATCACCCTGAAC	
727	AlaLeuIleThrMETAlaIleGlnAsnAlaProAspLysLysIleThrLeuAsn	102
781	GGCATCTACCAGTTCATCATGGACCGCTTCCCCTTCTACCGGGACAACAAGCAG GlyIleTyrGlnPheIleMETAspArgPheProPheTyrArgAspAsnLysGln	120
835	GGCTGGCAGAACAGCATCCGCCACAACCTCTCGCTCAACGAGTGCTTCGTCAAG GlyTrpGlnAsnSerIleArgHisAsnLeuSerLeuAsnGluCysPheValLvs	138
889	GTGCCGCGCGACGACAAGAAGCCGGGCAAGGGCAGCTACTGGACGCTGGACCCG ValProArgAspAspLysLysProGlyLysGlySerTyrTrpThrLeuAspPro	156
943	GACTCCTACAACATGTTCGAGAACGGCAGCTTCCTGCGGCGGCGGCGCGCTTC AspSerTryAsnMETPheGluAsnGlySerPheLeuArgArgArgArgPhe	174
007	AAGAAGAAGGACGCGGTGAAGGACAAGGAGGAGAAGGACAGGCTGCACCTCAAG	
997	LysLysAspAlaValLysAspLysGluGluLysAspArgLeuHisLeuLys	192
1051	GAGCCGCCCCGCCCGGCCCAGCCCCCGCCCGCGCGCGCG	
1031	GluProProProGlyArgGlnProProProAlaProProGluGlnAlaAsp	210
1105	GGCAACGCGCCCGGTCCGCAGCCGCCGCCCGTGCGCATCCAGGACATCAAGACC	
1105	GlyAsnAlaProGlyProGlnProProProValArgIleGlnAspIleLysThr	228
1159	GAGAACGGTACGTGCCCCTCGCCGCCCCAGCCCCTGTCCCCGGCCGCCCCCTG	
1133	GluAsnGlyThrCysProSerProProGlnProLeuSerProAlaAlaAlaLeu	246
1213	GGCAGCGGCAGCGCCGCGCGGTGCCCAAGATCGAGAGCCCCCGACAGCAGCAGC	
1213	GlySerGlySerAlaAlaAlaValProLysIleGluSerProAspSerSerSer	264
1267	AGCAGCCTGTCCAGCGGGAGCAGCCCCCCGGGCAGCCTGCCGTCGGCGGCCG	
1207	SerSerLeuSerSerGlySerSerProProGlySerLeuProSerAlaArgPro	282
1221	CMC3-CCCMCC3-CCCMCCCC3-MMCCCCCCCCCCCCCC	
1321	CTCAGCCTGGACGGTGCGGATTCCGCGCCGCCCCCCCCCC	300
1375	CCGCCGCACCATAGCCAGGGCTTCAGCGTGGACAACATCATGACGTCGCTGCGG	
13/3	ProProHisHisSerGlnGlyPheSerValAspAsnIleMETThrSerLeuArg	318
1429	GGGTCGCCGCAGAGCGCGGCCGCGGAGCTCAGCTCCGGCCTTCTGGCCTCGGCG	
1447	GlySerProGlnSerAlaAlaAlaGluLeuSerSerGlyLeuLeuAlaSerAla	336
1483	GCCGCGTCCTCGCGCGGGGATCGCACCCCCGCTGGCGCTCGGCGCCTACTCG	
7407	AlaAlaSerSerArgAlaGlyIleAlaProProLeuAlaLeuGlyAlaTyrSer	354
1537	CCCGGCCAGAGCTCCCTCTACAGCTCCCCCTGCAGCCAGACCTCCAGCGCGGGC	
1331	ProGlyGlnSerSerLeuTyrSerSerProCysSerGlnThrSerSerAlaGly	372
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Fig. 1A

OT 29 2004 SO

IOWA:042USD1 U.S. Serial No. 09/612,809 "Method to Identify Modulators of FKHL7 DNA-Binding Activity Val C. Sheffield et al.

2/4

1591	AGCTCGGGCGGCGGCGCGCGCGGGGGCGCGCGCGCGCGCG	390
1645	GGGACCTACCACTGCAACCTGCAAGCCATGAGCCTGTACGCGGCCGGC	408
1699	GGGGGCCACTTGCAGGGCGCGCCCGGGGGGGGGGGGGGG	426
1753	CCCCTGCCCGACTACTCTCTGCCTCCGGTCACCAGCAGCAGCTCGTCGTCCCTG ProLeuProAspTyrSerLeuProProValThrSerSerSerSerSerLeu	444
1807	AGTCACGGCGGCGGCGGCGGCGGCGGGGGGGGCCAGGAGGCCGGCCACCA	462
1861	CCTGCGGCCCACCAAGGCCGCCTCACCTCGTGGTACCTGAACCAGGCGGGCG	480
1915	GACCTGGGCCACTTGGCAAGCGCGGCGGCGGCGGCGGCGGCGGCGGCTACCCG AspLeuGlyHisLeuAlaSerAlaAlaAlaAlaAlaAlaAlaAlaGlyTyrPro	498
1969	GGCCAGCAGCAGAACTTCCACTCGGTGCGGGAGATGTTCGAGTCACAGAGGATC GlyGlnGlnAsnPheHisSerValArgGluMETPheGluSerGlnArgIle	516
2023	GGCTTGAACAACTCTCCAGTGAACGGGAATAGTAGCTGTCAAATGGCCTTCCCT GlyLeuAsnAsnSerProValAsnGlyAsnSerSerCysGlnMETAlaPhePro	534
2077	TCCAGCCAGTCTCTGTACCGCACGTCCGGAGCTTTCGTCTACGACTGTAGCAAG SerSerGlnSerLeuTyrArgThrSerGlyAlaPheValTyrAspCysSerLys	552
2131	TTTTGAcacaccctcaaagccgaactaaatcgaaccccaaagcaggaaaagcta PheSTP	554
22222222222222222222222222222222222222	aaggaacccatcaaggcaaaatcgaaactaaaaaaaaaa	



IOWA:042USD1 U.S. Serial No. 09/612,809 "Method to Identify Modulators of FKHL7 DNA-Binding Activity Val C. Sheffield et al.

3/4

	Helix 1 Helix 2 Helix 3 Wing 1 Wing 2
Forkhead FKHL7	SYTHASN.TRMLSELQ.Q.RSF.DITPDF PKDMVKPPYSYIALITWAIQNAPDKKITLNGIYQFIMDRFPFYRDNKQGWQNSIRHNLSLNECFVKVPRDDKKPGKGSYW
Mutations	I W I
FKHL14	П
FKHL18	TTEPTASS.GQRASRVGAH.RPTRQT
FKHL11	AETPQADEQRVHRHRDDEKGRRCLDNYRK.P.PGP
FKHL12	. LQRGALAHGRRLAARTEASPRKTDEPGNNAAADDPKRAE
FKHL15	.LQRGAAHERRLGKTEPKKTDL.IEAGRNANAEDSKRS.
FKHL9	ARQPASLQS.H.RLSCASY.RKFPDI.EPGRNSA.QDDKQRNQ
FKHL8	RTRLLQS.K.RLSE.CESGYEKFPADIEPGNNE.ADDKKQP
FKHL17	RSPLLQS.KKRLSE.CESGYEKFPADIEPGNNE.ADDKKQP
FKHL5	IRRPEVSS.T.RLSELQSF.GSYK.VI.L.KGLGRHIA.EFRG.RR.C
FKHL6	LRRPEVSS.S.RLSELQAF.GAYK.VI.L.KGLGRHIA.EFRG.RR.C
FKHL4	NGKYEFNMRQS.E.RLEKNYEKKKHYDDNMS.DDV.IG.TTGKLSTTSP
FKHL2	NGKYEFNMMRQS.E.RLEKNYEKKHYDDNMS.DDV.IG.TTGKLSTTSPA
FKHL3	G.YEKPFNMRQS.E.RLEKNYEHDKHYDDNMS.DDV.IG.TTGKLSTTSR
FKHL10	LMKLVRSAHGRLSQYVA.NNKS.ADKEDD
FKHL13	TNPHATCM.ASKATSAKW.T.N.CYF.HADPTKIEKDEGF.RIQYAERLLS.AFKKLPFVHIH
FKHR	WGNLSYADLITK.IESS.EKRLTLSQ.YEWMVKSVPYFKDKGDSNSSAKHSK.IR.QNEGTGKSSWWMLNPEGGKSGKSPRRAASWD

Fig. 2

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IOWA:042USD1 U.S. Serial No. 09/612,809 "Method to Identify Modulators of FKHL7 DNA-Binding Activity Val C. Sheffield et al.

4/4

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Contig																																					
Tissue	NhimPu	NhHMPu	MPu		Fetal Heart	Placenta, 8 to 9 wk	NhHMPu	NCI_CGAP_Lu5	Fetal Heart, 19 wk	Wilms Tumor	CGAP_GC4	Heart, 19	Heart, 19	Fetal Heart, 19 wk	Ä	Placenta, 8 to 9 wk	Fetal Cochlea	Fetal Heart	Embryo, 9 wk	Fetal Cochlea	Pr9	Placenta, 8 to 9 wk	NCI_CGAP_Pr22	Aorta	NCI_CGAP_Kid3	Aorta	Kidney, 6 wk		Gland, 4	Gland, 4	13	5-14.5	ius, 4 wk	3.5-14	Embryo, 11.5 dy		Embryo
Insert							722						919							475										936							
3" Sequence	AA232201	AA424787	AA424466		W94629	N25875		AA885880		AA776534	AA865139	W73917	AA022755		AA902429	N25867				N22552			AA688135		AA886687				AA759405	AA458089	W57082						
5' Sequence	AA232742		AA424381	N40575			AA495846		W77980				AA022618	W94714			H89575	AA348051	AA334694	N75774	AA551599	N40582		D 56550		D57248	AA276025	AA673797	AA960591			W91182	AA739434			AA819240	AA96464
Loc	31	<u>س</u>	ب	<u>~</u>	<u>ო</u>	<u>~</u>	<u>ښ</u>	<u>~</u>	<u>-</u>	<u>~</u>	ب	<u>-</u>	<u>~</u>	<u>.</u>	<u>ښ</u>	<u>-</u>	<u>.</u>	<u>-</u>	.	~	<u>~</u>	<u>-</u>	<u>ب</u>	<u>~</u>	<u>.</u>	<u>.</u>	31		.	.	ب	-	<u>.</u>	~	~ ~	, -	
Vector				pT7T3D	ı		pT7T3D	1					pT7T3D	•			pBlue SK-	•		pBlue SK-	ı	pT7T3D	ı				pT7T3D			pT7T3D		pT7T3D	pT7T3D	pT7T3D	psport1		
Organism	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Human	Mouse	Mouse	Mouse	Mouse	Mouse	Mouse	Mouse	Mouse		Rat	Rat
Image Number	666326	768274	767110	258143	358885	258359	768370	1500423	346077	1156628	1469849	346079	364392	358885	1521276	258335	253556			253733	996558	258167	1220412		1500703		776052	1180061	1248576	864300	372142	419796	1226133	403237			
Clone Name	zr45a08	zw04a06	zv90g12	yw76b12	ze13t07	yw78d12	zw05a06	0136t08	zd71b11	ab14c11	oh48b09	zd71b12	ze71a01	ze13t07	ok90g07	yw78b12	yw28c11	EST54452	EST38957	yw30d03	nj57a04	yw76d12	nv16g07	GEN-206f07	oj39104	GEN-288A05	vc30a07	vu08t03	vw64c01	vg45c07	md53e12	mt72a07	vv53d11	me94t07	vc85b07	TT-R-A0-a1-h-03	UI-R-E1-go-e-12